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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 049411-0268

In re patent application of Hongxing TANG, et al.

Group Art Unit: 2855

Serial No. 10/826,007

Examiner: Not Yet Known

Filed: April 16, 2004

For: Strain Sensors Based On Nanowire Piezoresistor Wires And Arrays

**CERTIFICATE UNDER 37 C.F.R. §3.73(b)**

**California Institute of Technology**, a corporation of the state of California, certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_, Frame \_\_\_, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. Assignment

From:

To:

The assignment document was recorded in the Patent and Trademark Office at Reel \_\_\_, Frame \_\_\_, or for which a copy thereof is attached.

2. Assignment

From:

To:

The assignment document is being filed for recordation in the Patent and Trademark Office concurrently with this Certificate Under 37 C.F.R. § 3.73(b). A copy of this document and the recordation sheet is attached.

Serial No. 10/826,007  
Attorney Docket No. 049411-0268

3. Merger/Change of Name

From:

To:

The merger/change of name document is being filed for recordation in the Patent and Trademark Office concurrently with this Certificate Under 37 C.F.R. § 3.73(b). A copy of this document and the recordation sheet is attached.

☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: Jan. 25, 2005

Name: Stephen B. Maebius, Reg. No. 35,264

Title: Attorney for Applicant

Signature: 

**ASSIGNMENT**

CIT Case No. 3887

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

Hongxing Tang

hereby sells, assigns and transfers to ASSIGNEE, California Institute of Technology, having its statewide administrative offices located at 1200 East California Boulevard, Pasadena, California 91125, and the successors, assigns and legal representatives of the ASSIGNEE, all of its rights, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

**Strain Sensors Based on Nanowire Piezoresistor Wires and Arrays**

and which is found in

- (a) \_\_\_\_ U.S. provisional application filed herewith and listing the above named persons as inventors  
(b) \_\_\_\_ U.S. patent application filed herewith and listing the above named persons as inventors  
(c) X U.S. application serial no. 10/826,007, filed on April 16, 2004  
(d) \_\_\_\_ U.S. Patent No.: \_\_\_\_\_, issued \_\_\_\_\_

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further covenants that the ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the ASSIGNOR(S) requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, California Institute of Technology.

executed this

Signature of Inventor(s)

24th day of August, 2004

  
\_\_\_\_\_  
Hongxing Tang

**ASSIGNMENT**

CIT Case No. 3887

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

Michael L. Roukes

hereby sells, assigns and transfers to ASSIGNEE, California Institute of Technology, having its statewide administrative offices located at 1200 East California Boulevard, Pasadena, California 91125, and the successors, assigns and legal representatives of the ASSIGNEE, all of its rights, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

**Strain Sensors Based on Nanowire Piezoresistor Wires and Arrays**

and which is found in

- (a) \_\_\_\_ U.S. provisional application filed herewith and listing the above named persons as inventors  
(b) \_\_\_\_ U.S. patent application filed herewith and listing the above named persons as inventors  
(c) X U.S. application serial no. 10/826,007, filed on April 16, 2004  
(d) \_\_\_\_ U.S. Patent No.: \_\_\_\_\_, issued \_\_\_\_\_

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further covenants that the ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the ASSIGNOR(S) requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, California Institute of Technology.

executed this

Signature of Inventor(s)

24<sup>th</sup> day of August, 2004

Michael L. Roukes  
Michael L. Roukes



PTO/SB/80 (11-04)  
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## POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

☒ Practitioners associated with the Customer Number: 22428

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

☒ The address associated with Customer Number:

22428

OR

<input type="checkbox"/> Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone			Fax

Assignee Name and Address:

California Institute of Technology  
1201 East California Boulevard  
Pasadena, California 91125  
United States of America

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

### SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	29 December 2004
Name	Adam Cochran	Telephone	626-395-4567
Title	Intellectual Property Counsel, California Institute of Technology		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.